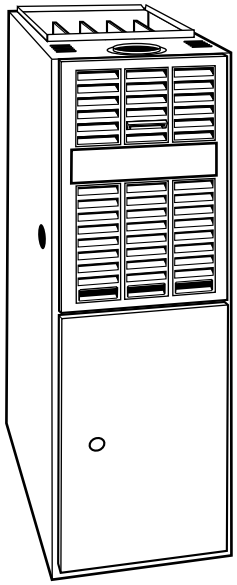
Carrier®
HEATING & COOLING

Product Data

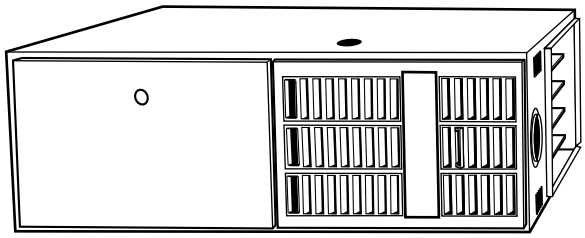
58UXT

WeatherMaker® 8000 Two-Speed Energy-Efficient Upflow/Horizontal Furnace

Input Capacities:
60,000 thru 120,000 Btuh



UPFLOW



HORIZONTAL

Two-Speed Heating for High-Efficiency Gas Furnaces

Carrier leads the industry with our new WeatherMaker® 8000 Two-Speed Upflow/Horizontal Induced-Combustion Gas Furnace. This furnace can operate at 2 different speed settings which provide outstanding home comfort. The WeatherMaker 8000 Two-Speed is built with the most advanced manufacturing equipment, processes, and technology available in order to ensure top quality. Packed into the cabinet are the industry's foremost dealer and homeowner features.

These 2-speed induced-combustion, gas-fired furnaces offer not only low installation costs, but fuel economy as well—delivering an Annual Fuel Utilization Efficiency (AFUE) rating of 80.0 percent. The WeatherMaker 8000 Two-Speed utilizes a hot surface, silicon carbide ignition system to save energy and increase reliability.

Our design uses the patented S-shaped 4-pass heat exchanger, a soft mount 2-speed inducer assembly, and a 2-stage slow-opening gas valve to minimize sound level. The Super-S heat exchanger provides better heat transfer while enabling us to make a compact furnace. This provides more room in closet, utility room, and short basement installations. The heat exchanger is constructed of aluminized steel and is backed by a 20-year Limited Warranty.

The WeatherMaker 8000 Two-Speed will meet your home heating requirements. This furnace

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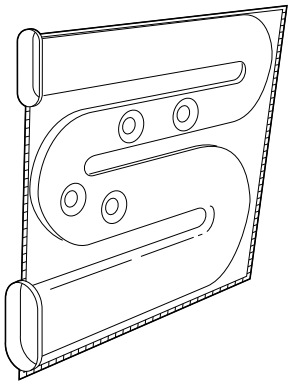
family provides a wide range of heating capacities. All models are GAMA efficiency rating certified and certified for use in California Air Quality Management Districts.

The superior attention to cabinet detail is obvious. The WeatherMaker 8000 Two-Speed features 1-piece, seamless, wrap-around construction. There are no spot welds on the exterior surfaces of the WeatherMaker 8000 Two-Speed. There is also double protection for the cabinet. First, a galvanized steel substrate provides resistance to rusting. Then the cabinet is constructed of prepainted steel—the same high-quality finish found on refrigerators and dishwashers.

Perhaps the most advanced feature of the WeatherMaker 8000 Two-Speed is the state-of-the-art microprocessor control center which shows true leadership in furnace technology. The simplified electronics in this control provide high reliability while performing many of the functions of older, electro-mechanical devices in other furnaces. The control provides blower delay at start-up and shutdown, while monitoring furnace operations and functions. In the unlikely event of a service call, in less than a minute, the technician can use the self-test feature to determine if a major component has failed. The control will check itself; then the low and high inducer speeds; silicon carbide ignition; and low-, medium-, and high-speed blower. The control also features a 3-amp fuse that protects the transformer and control.

Best of all, the WeatherMaker 8000 Two-Speed is easily installed. Many features make this furnace the easy choice for replacement or new construction markets. Left and right connections are provided for gas and electrical supplies. An easy-to-remove bottom, heating and cooling blower speed selection, low-voltage humidifier, and electronic air cleaner terminal connections are among other features.



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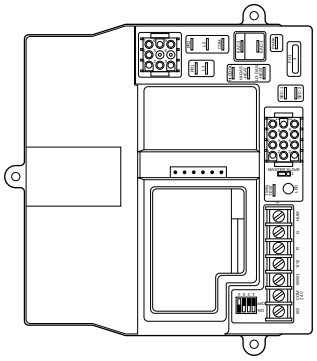
HEAT EXCHANGER



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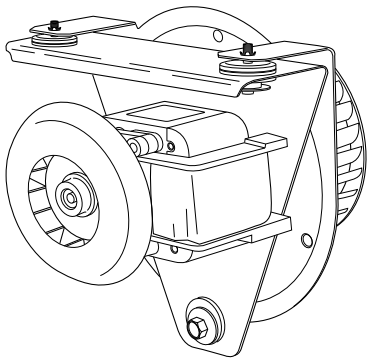
2-SPEED FURNACE CONTROL



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2-SPEED INDUCER BLOWER

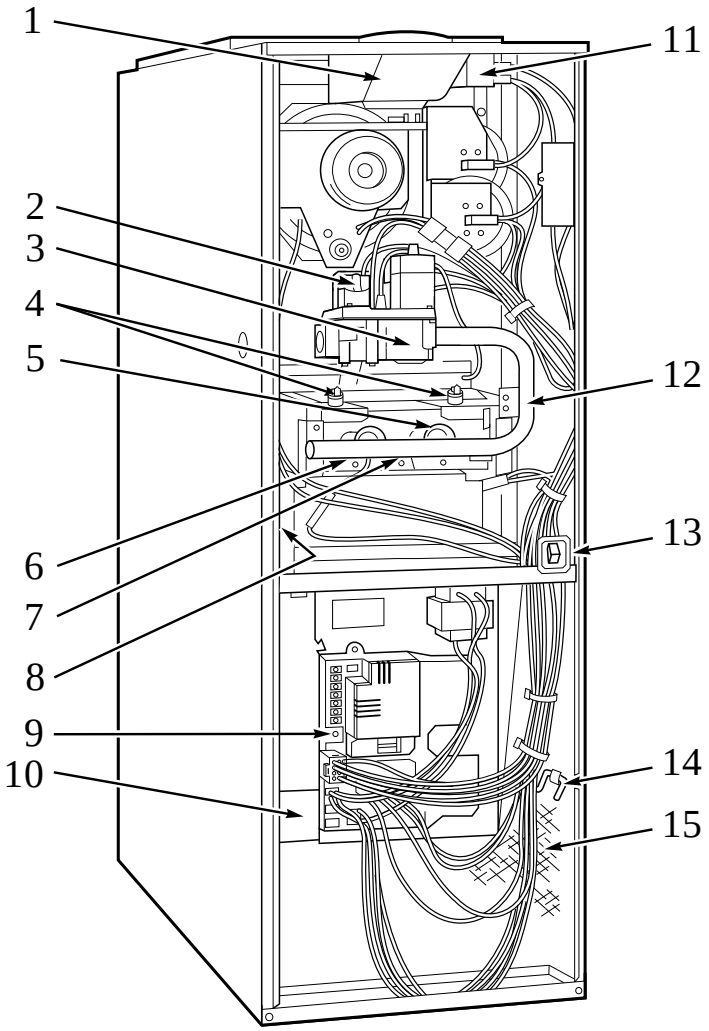
Model number nomenclature

58UXT — **High-Efficiency Induced-Combustion Upflow Furnace**

060 — **Input Capacity**
060 — 60,000 Btuh
080 — 80,000 Btuh
100 — 100,000 Btuh
120 — 117,000 Btuh

110 — **Series Number**

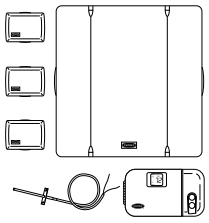
12 — **Cooling Size (Airflow)**
(400 CFM per 12,000 Btuh)
08 — 800 CFM
12 — 1200 CFM
14 — 1400 CFM
16 — 1500 CFM
20 — 2000 CFM



NOTE: The 58UXT Furnaces are for use with natural gas, but can be field-converted for propane gas with a factory-authorized and listed accessory conversion kit.
NOTE: Control location and actual control may be different than shown above.

1. Relief Box
2. Gas Valve Control Knob or Electric Switch (On/Off)
3. 2-Stage Gas Valve
4. Manual Reset Flame Rollout Switches (2)
5. Gas Burner
6. Flame Sensor
7. Hot Surface Ignitor
8. Rating Plate
9. Status LED Light
10. Blower and Blower Motor
11. Draft Safeguard Tube and Switch
12. Gas Manifold
13. Blower Door Safety Switch
14. Filter Retainer
15. Air Filter

Carrier accessories*



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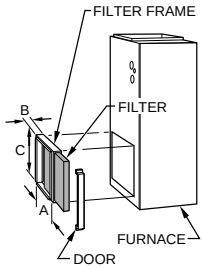
CONTROLS: THERMOSTATS AND ZONING

Available in programmable and non-programmable models. Carrier thermostats maintain a constant, comfortable temperature level in the home.

For the ultimate in home comfort, Carrier's 2, 4, and 8-zone systems allow temperature control of individual "zones" of the home. This is accomplished through a series of electronic dampers and remote room sensors. The 4-zone system is shown.

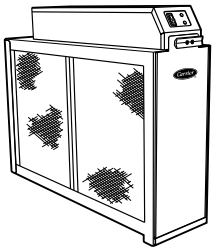


A93068

SIDE FILTER RACK

Custom-made filter rack for easy connection when a return plenum already exists. Provides easy access for cleaning filter.

A	23-1/8 in.
B	2-3/8 in.
C	14-1/2 in.

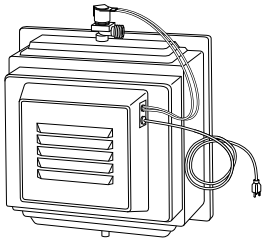


A97380

ELECTRONIC OR MECHANICAL AIR CLEANER

Cleans the air of smoke, dirt, and many pollens commonly found. Saves on decorating and cleaning expenses by keeping carpets, furniture, and drapes cleaner.

Electronic air cleaner is shown.



A91365

MODEL 49FH HUMIDIFIER

By adding moisture to winter-dry air, a Carrier humidifier can often improve comfort and keep furniture, rugs, and draperies in better condition. Moisturizing household air also helps to retain normal body heat and provides comfort at lower temperatures.

UNIT SIZE	060-12	080-16	100-16 and -20	120-20
ELECTRONIC AIR CLEANER (EAC)	Model AIRA			
MECHANICAL AIR CLEANER	Model 31MF			
HUMIDIFIER	Models 49BF, 49BG, 49FH, 49FP, and 49WS			
HEAT RECOVERY VENTILATOR	Models VA3B, VB5B, or VC5B			
ENERGY RECOVERY VENTILATOR	Model VL3A			
THERMOSTAT — NON-PROGRAMMABLE	For Use with 1-Speed Air Conditioner — TSTATCCNAC01-A For Use with 2-Speed Air Conditioner — TSTATCCN2S01-A For Use with 2-Speed Heat Pump — TSTATCCN2S01-A			
THERMOSTAT — PROGRAMMABLE	For Use with 1-Speed Air Conditioner — TSTATCCPAC01-A For Use with 2-Speed Air Conditioner — TSTATCCP2S01-A For Use with 1-Speed Heat Pump — TSTATCCPDF01-A For Use with 2-Speed Heat Pump — TSTATCCP2S01-A or TSTATCCPDF01-A			
THERMIDISTAT — PROGRAMMABLE THERMOSTAT with Humidity Control	TSTATCCPRH01-A			
ZONING — 2 ZONE	ZONECC2KIT01, ZONEKIT2ZCAR			
ZONING — 4 ZONE	ZONECC4KIT01			
ZONING — 8 ZONE	ZONECC8KIT01			
SIDE FILTER RACK (Accepts one 16 x 25 x 1 Filter)	KGAFR0201ALL			
TWINNING KIT†	KGATW0401HSI			
HIGH-ALTITUDE PRESSURE SWITCH KIT‡	KGAHA5501PSW			
GAS CONVERSION KIT*— NATURAL-TO-PROPANE	KGANP24012SP			
PROPANE-TO-NATURAL	KGAPN20012SP			

* Factory authorized and field installed. Gas conversion kits are A.G.A./C.G.A. recognized.
† 16 and 20 models only.
‡ 5500 ft and higher above sea level.

Physical data

UNIT SIZE		060-12	080-16	100-16	100-20	120-20
GAS INPUT (BTUH)*	High Stage	60,000	80,000	100,000	100,000	117,000
	Low Stage	39,000	52,000	65,000	65,000	78,000
OUTPUT CAPACITY (BTUH)†	High Stage	48,000	65,000	81,000	81,000	95,000
Nonweatherized ICS	Low Stage	31,000	42,000	53,000	53,000	63,000
SHIPPING WEIGHT (LB)		134	154	166	184	194
CERTIFIED TEMP RISE	High Stage	25-55	30-60	40-70	25-55	40-70
RANGE (°F)	Low Stage	15-45	15-45	20-50	15-45	25-55
CERTIFIED EXT STATIC PRESSURE (In. wc)	Heating	0.12	0.15	0.20	0.20	0.20
	Cooling	0.5	0.5	0.5	0.5	0.5
AIRFLOW CFM‡	Heating High/Low	1170/1000	1445/1260	1410/1265	1720/1515	1730/1525
	Cooling	1195	1740	1575	2210	1980
LIMIT CONTROL		SPST (Auto-Reset)				
HEATING BLOWER CONTROL		Solid-State Time Operation				
INDUCER		2-Speed				
BURNERS (Monoport)		3	4	5		6
GAS CONNECTION SIZE		1/2-in. NPT				
GAS VALVE (Redundant) Manufacturer		White-Rodgers				
Minimum Inlet Pressure (In. wc)		4.5 (Natural Gas)				
Maximum Inlet Pressure (In. wc)		13.6 (Natural Gas)				
IGNITION DEVICE		Hot Surface				

* Gas input ratings are certified for elevations to 2000 ft. For elevations above 2000 ft, reduce ratings 4% for each 1000 ft above sea level. Refer to National Fuel Gas Code Table F4. In Canada, derate the unit 10% for elevations 2000 ft to 4500 ft above sea level.
† Capacity and AFUE in accordance with U.S. Government DOE test procedures.
‡ Air delivery above 1800 CFM requires that both sides, or a combination of 1 side and bottom, or bottom only of the furnace be used for return air. Side return to be used for upflow applications only. A filter is required for each return-air supply.
ICS — Isolated Combustion System

Performance data

UNIT SIZE	060-12	080-16	100-16	100-20	120-20
DIRECT-DRIVE MOTOR Hp (PSC)	1/3	1/2	1/2	3/4	3/4
MOTOR FULL LOAD AMPS	5.1	7.4	7.9	11.0	11.1
RPM (Nominal) — SPEEDS	1075-5	1075-5	1075-4	1075-5	1075-4
BLOWER WHEEL DIAMETER X WIDTHS (In.)	10 x 6	10 x 8	10 x 8	11 x 10	11 x 10
WASHABLE 16 x 25 x 1-in. FILTER — QTY	1	—	—	2	2
WASHABLE 20 x 25 x 1-in. FILTER — QTY	—	1	1	—	—

PSC — Permanent Split Capacitor

EFFICIENCY

UNIT SIZE		060-12	080-16	100-16	100-20	120-20
CAPACITY BTUH*	High Stage	48,000	65,000	81,000	81,000	95,000
	Low Stage	31,000	42,000	53,000	53,000	63,000
AFUE%*	Nonweatherized ICS	80.0	80.0	80.0	80.0	80.0

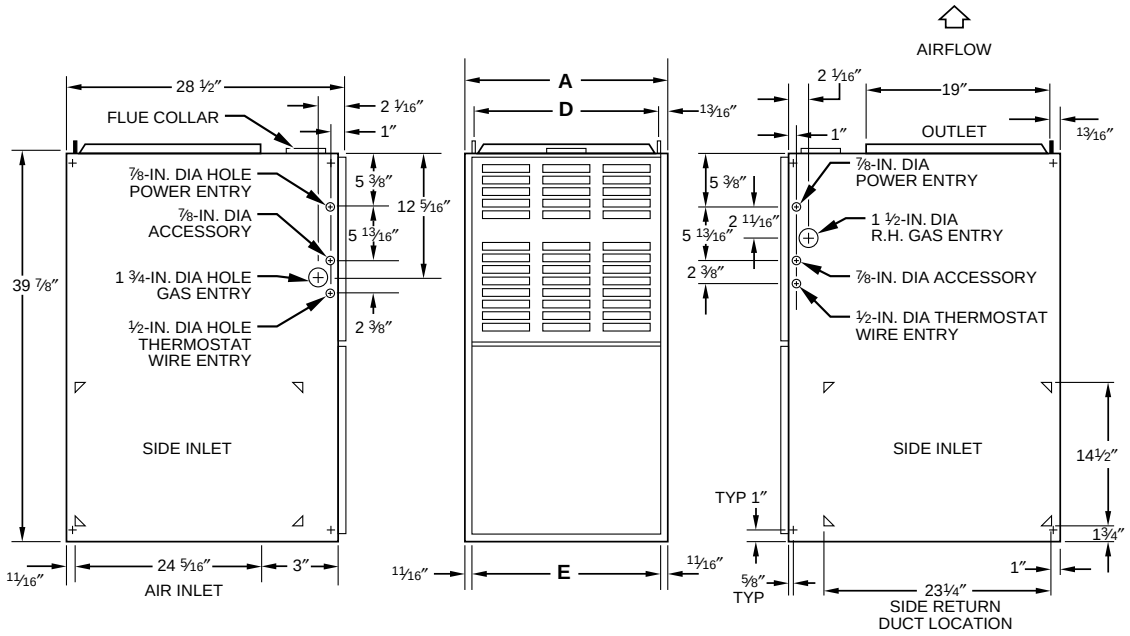
* Capacity and AFUE in accordance with U.S. Government DOE test procedures.
ICS — Isolated Combustion System

AIR DELIVERY — CFM* (With Filter)

UNIT SIZE	SPEED	EXTERNAL STATIC PRESSURE (In. wc)							
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
060-12	High	1430	1380	1325	1265	1195	1125	1045	945
	Med-High	1170	1150	1135	1105	1055	995	925	845
	Med	1000	1000	990	970	935	885	835	750
	Med-Low	865	870	855	840	815	780	720	655
	Low	685	690	680	665	645	610	570	500
080-16	High	2010	1950	1875	1810	1740	1660	1550	1455
	Med-High	1675	1660	1625	1600	1545	1490	1395	1295
	Med	1445	1430	1415	1400	1370	1325	1265	1170
	Med-Low	1260	1260	1260	1250	1210	1180	1115	1030
	Low	950	985	985	970	950	915	845	740
100-16	High	1880	1815	1745	1690	1575	1500	1400	1265
	Med-High	1660	1615	1570	1505	1435	1355	1260	1170
	Med-Low	1455	1410	1375	1350	1290	1235	1145	985
	Low	1265	1265	1240	1210	1180	1110	995	855
100-20	High	2475	2405	2330	2265	2210	2130	2040	1945
	Med-High	2055	2025	2000	1965	1930	1865	1795	1720
	Med	1725	1720	1705	1685	1665	1630	1585	1525
	Med-Low	1500	1515	1510	1500	1480	1460	1415	1370
	Low	1140	1155	1145	1140	1125	1100	1065	1030
120-20	High	—	2210	2130	2055	1980	1895	1795	1680
	Med-High	2015	1975	1925	1880	1805	1735	1655	1555
	Med-Low	1730	1710	1670	1635	1590	1535	1470	1385
	Low	1525	1520	1495	1450	1410	1375	1315	1245

*Air delivery above 1800 CFM requires that both sides, or a combination of 1 side and bottom, or bottom only of the furnace be used for return air. Side return to be used for upflow applications only. A filter is required for each return-air supply opening.
—Indicates unstable operating conditions.

Dimensions



NOTES: 1. Two additional ⅞-in. dia holes are located in the top plate.
2. Minimum return-air opening at furnace:
   a. For 800 CFM–16-in. round or 14½ x 12-in. rectangle.
   b. For 1200 CFM–20-in. round or 14½ x 19½-in. rectangle.
   c. For 1600 CFM–22-in. round or 14½ x 23¼-in. rectangle.
   d. For airflow requirements above 1800 CFM, use both side inlets, a combination of 1 side inlet and the bottom, or the bottom only.

A88367

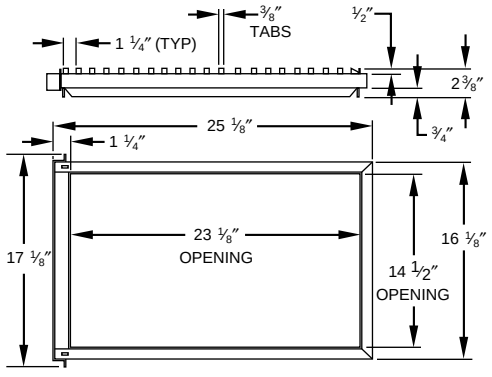
NOTES:

1. A factory-supplied panel covers the back side of the accessory return-air plenum that extends above the furnace.
2. Refer to the furnace Installation Instructions for proper venting procedures.

DIMENSIONS (In.)

UNIT SIZE	A	D	E	VENT CONNECTION
060-12	14-3/16	12-9/16	12-11/16	4
080-16	21	19-3/8	19-1/2	4
100-16	21	19-3/8	19-1/2	4
100-20	24-1/2	22-7/8	23	4
120-20	24-1/2	22-7/8	23	5

ACCESSORY SIDE FILTER RACK



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MINIMUM INCHES CLEARANCE TO COMBUSTIBLE CONSTRUCTION

This forced air furnace is equipped for use with natural gas at altitudes 0-10,000 ft (0-3,050m).

An accessory kit, supplied by the manufacturer,shall be used to convert to propane gas use or may be required for some natural gas applications.

This furnace is for indoor installation in a building constructed on site.

This furnace may be installed on combustible flooring in alcove or closet at minimum clearance from combustible material.

This furnace may be used with a Type B-1 Vent and may be vented in common with other gas-fired appliances.

\# For furnaces wider than 14.25 inches (362mm) may be 0 inches.

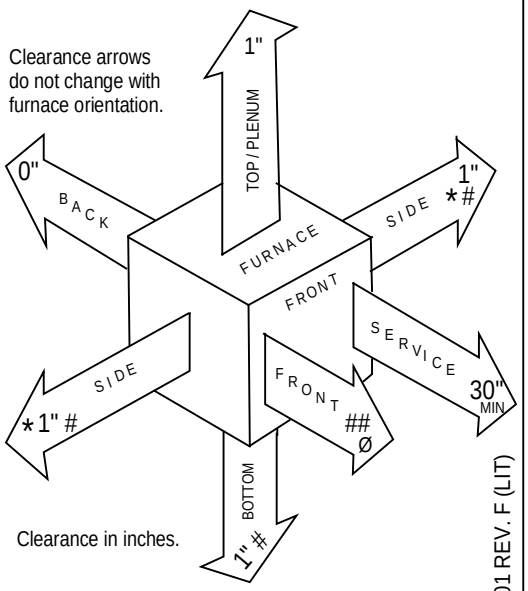
* Indicates supply or return sides when furnace is in the horizontal position. Line contact only permissible between lines formed by intersections of the Top and two Sides of the furnace jacket, and building joists, studs or framing.

Ø 18 inches front clearance required for alcove.

\# \# For single wall vent type 6 inches. For Type B-1 vent type 3 inches.

This furnace is approved for UPFLOW and HORIZONTAL installations.

Clearance arrows do not change with furnace orientation.



Clearance in inches.

Vent Clearance to combustibles:
For Single Wall vents 6 inches (6 po).
For Type B-1 vent type 1 inch (1 po).

322291-101 REV. F (LIT)

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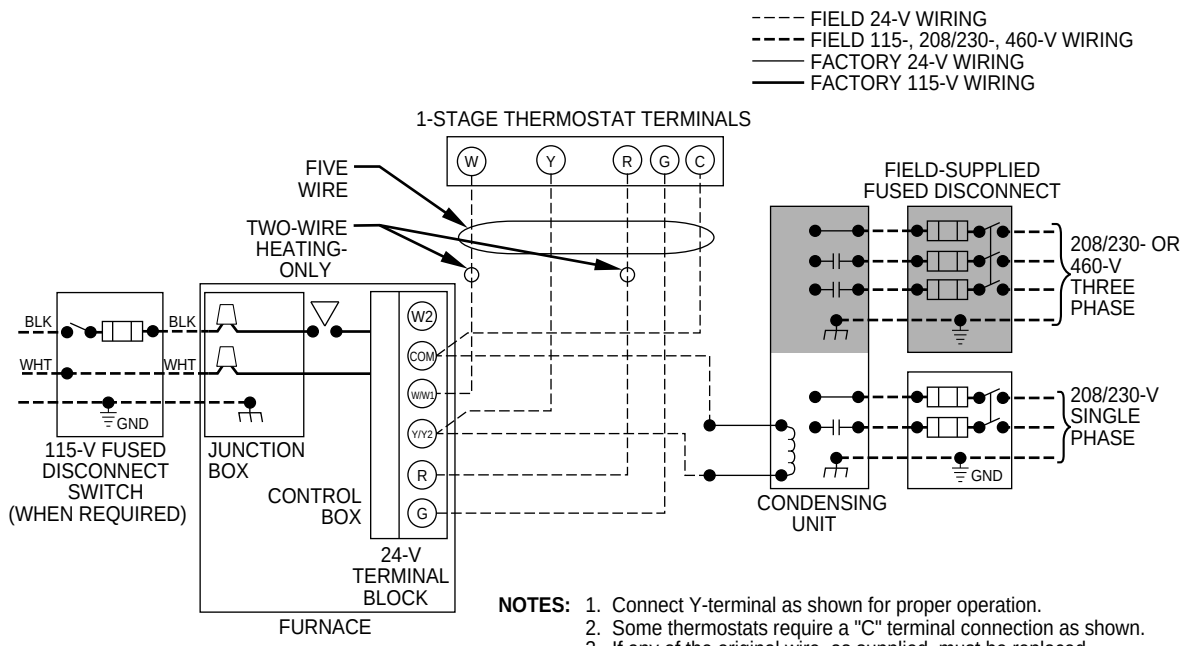
MEETS DOE RESIDENTIAL CONSERVATION SERVICES PROGRAM STANDARDS.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailers.

Typical wiring schematics



NOTES:
1. Connect Y-terminal as shown for proper operation.
2. Some thermostats require a "C" terminal connection as shown.
3. If any of the original wire, as supplied, must be replaced, use same type or equivalent wire.

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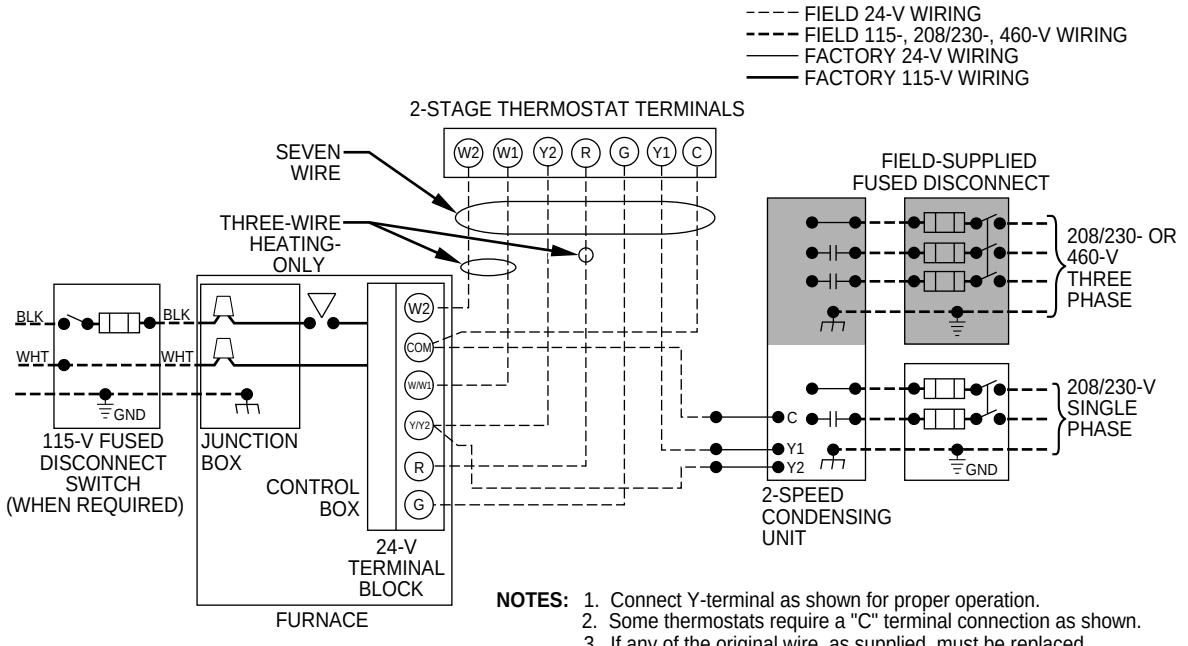


NOTES:
1. Connect Y-terminal as shown for proper operation.
2. Some thermostats require a "C" terminal connection as shown.
3. If any of the original wire, as supplied, must be replaced, use same type or equivalent wire.

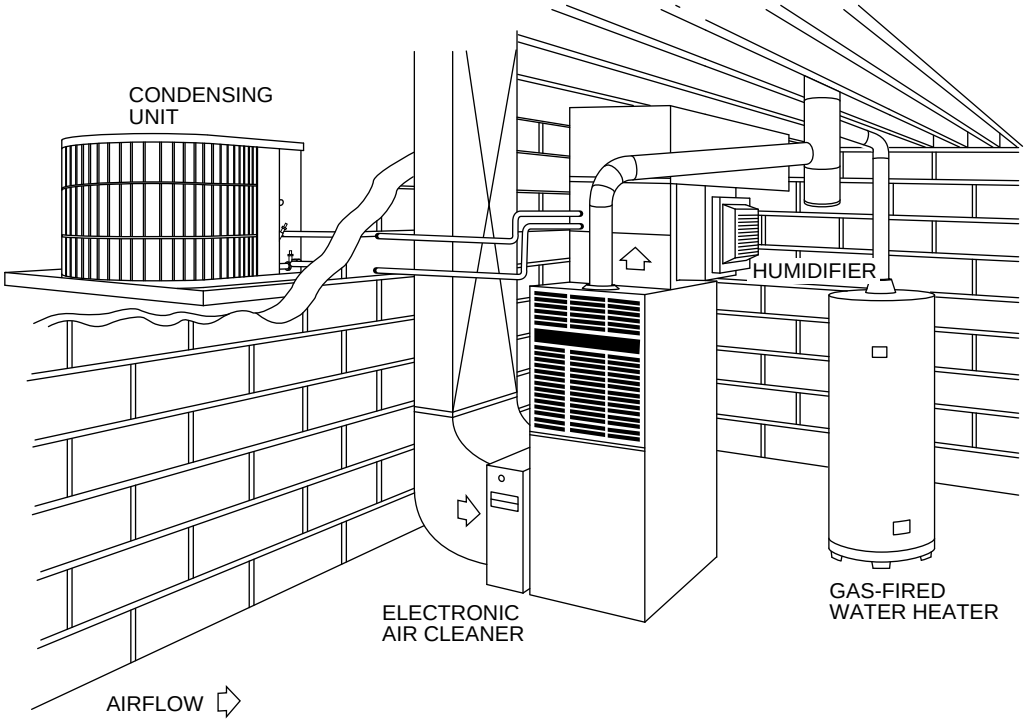
A97444

Electrical data

UNIT SIZE		060-12	080-16	100-16	100-20	120-20
UNIT VOLTS—HERTZ—PHASE		115—60—1				
MINIMUM WIRE SIZE		14	14	14	12	12
MAXIMUM WIRE LENGTH (Ft)*		35	26	28	32	31
MAXIMUM UNIT AMPS		10.5	14.2	13.2	17.9	18.2
OPERATING VOLTAGE RANGE (Min—Max)†		104—127				
MAX FUSE SIZE OR HACR-TYPE CKT BKR (Amps)‡		15	15	15	20	20
TRANSFORMER (24v)		40va				
EXTERNAL CONTROL POWER AVAILABLE	Heating	19va				
	Cooling	35va				
AIR CONDITIONING BLOWER RELAY		Standard				

* Length shown is as measured 1 way along wire path between unit and service panel for maximum 2% voltage drop.
† Permissible limits of the voltage range at which the unit will operate satisfactorily.
‡ Time-delay fuse is recommended.

Typical installations



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SERVICE TRAINING

Packaged Service Training programs are an excellent way to increase your knowledge of the equipment discussed in this manual, including:

- Unit Familiarization
- Maintenance
- Installation Overview
- Operating Sequence

A large selection of product, theory, and skills programs is available, using popular video-based formats and materials. All include video and/or slides, plus companion book.

Classroom Service Training plus "hands-on" the products in our labs can mean increased confidence that really pays dividends in faster troubleshooting, fewer callbacks. Course descriptions and schedules are in our catalog.

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